

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD  
CENTRAL VALLEY REGION

**ATTACHMENT C**  
**IMPLEMENTATION, FORENSIC AND EFFECTIVENESS**  
**MONITORING AND REPORTING PROGRAM**  
**ORDER NO. R5-2010-\_\_\_\_**  
**FOR**  
**INDIVIDUAL DISCHARGERS**  
**UNDER**  
**WAIVER OF WASTE DISCHARGE REQUIREMENTS**  
**FOR DISCHARGES RELATED TO TIMBER HARVEST ACTIVITIES**

This Monitoring and Reporting Program (MRP) Order presents requirements for visual field monitoring of individual timber harvest projects enrolled in the Waiver of Waste Discharge Requirements for Discharges Related to Timber Harvest Activities (Waiver). This MRP is issued pursuant to Water Code Sections 13267 and 13269(a). This MRP implements conditions required by the Waiver and the Monitoring and Reporting Conditions (Attachment B) of Regional Board Resolution R5-2010-\_\_\_\_ for conducting Implementation, Forensic and Effectiveness monitoring for timber harvest activities enrolled in the Waiver under Categories 2 through 5. All timber harvest activities enrolled under Waiver Categories 2 through 5 shall comply with this MRP Order unless a revised MRP is issued by the Executive Officer.

**Deleted:** by the Executive Officer of  
the Central Valley Regional Water  
Quality Control Board (Regional Board)

This Monitoring and Reporting Program has been developed to assure compliance with requirements of applicable water quality control plans (Basin Plans) and to verify the adequacy and effectiveness of the Waiver's conditions.

**INSPECTION PLAN**

The discharger shall prepare and implement an Inspection Plan for evaluating the implementation and effectiveness of management measures installed to comply with Waiver eligibility criteria and conditions for the following:

- Accepted Exemption and Emergency Notices (Category 2 only), Timber Harvest Plans (THPs), Non-industrial Timber Management Plans (NTMPs), and other Plans approved by the Department of Forestry and Fire protection (CDF)
- Sales and projects approved by the United States Forest Service (USFS) except Forest Stand Improvement and Hazard Tree Removal projects

The Inspection Plan shall be designed to ensure that the management measures are installed and functioning prior to rain events, that the measures were effective in controlling sediment discharge sources throughout the winter period, and that no new sediment sources developed. The Inspection Plan shall include a monitoring point (inspection location) site map, for THPs and timber sale projects that exceed 100 acres in size. The site map shall include monitoring points (inspection locations) to be visited before, during and after the winter period. Monitoring points are further described as follows:

- *Visual Monitoring Points* - Visual monitoring points shall be delineated on the monitoring point site map and include roads, watercourse crossings, landings, skid trails, water diversions, known or suspected landslides and all accessible watercourse confluences.
- *Photo-Point Monitoring Points* – Photo-point monitoring points shall be delineated on the monitoring point site map and shall be identified in the field by use of rebar, flagging or other method that will last throughout the active discharge period of the proposed project. Implementation photo-point monitoring is automatically required when conditions listed for soils, unstable areas and large watercourse crossings in Category 4, Eligibility Criteria b. are present. Forensic photo-point monitoring is required when a significant discharge of sediment is detected or when failed management measures cause or may cause the release of 10 cubic yards (or more) of sediment to watercourses. Photo-point monitoring is required when Effectiveness Monitoring indicates that there were management measure failure(s) that resulted in a significant discharge of sediment to a Class I or Class II watercourse. Effectiveness photo-point monitoring shall include photos of streambed conditions immediately downstream of areas where significant discharges of sediment occurred. Monitoring points for Category 3 (nonfederal lands) will be determined during the pre-harvest inspection when Regional Board staff is present.

Inspection Plans shall be maintained and updated as needed by the discharger and/or agents thereof. Inspection Plans shall be submitted to the Regional Board upon request, in writing, by the Executive Officer, and those Inspection Plans shall be made available to the public.

## SITE INSPECTIONS

**Implementation Monitoring** - Implementation monitoring site inspections conducted prior to the winter period shall be designed to assure that management measures are properly installed. A “final compliance report” or “work completion report” inspection, conducted by CDF prior to the winter period and after cessation of active harvesting and road construction, may be substituted for the required pre-winter inspection if the inspection covers the entire plan area and the report is submitted to the Regional Board before December 1.

**Forensic Monitoring** – Forensic monitoring inspections shall be conducted during the winter period and shall be designed to detect potentially significant sources of pollution such as failed management measures or natural sources. The goal of winter forensic monitoring is to locate sources of sediment production in a timely manner so that rapid corrective action may be taken where feasible and appropriate. Winter forensic monitoring may also assist in determining cause and effect relationships between hillslope activities (harvesting, road construction etc.), hydrologic triggers and instream conditions. When conducting forensic monitoring, the

discharger shall also perform visual monitoring of roads, watercourse crossings, landings, skid trails, and known landslides to the extent feasible.

**Effectiveness Monitoring** – Effectiveness monitoring inspections shall be conducted following the winter period and shall be designed to determine whether hillslope conditions created by timber operations are resulting in instream conditions that visually appear to comply with water quality objectives and protect instream beneficial uses, determine whether Waiver criteria and conditions, on a programmatic scale, are adequately protecting water quality and instream beneficial uses and assist in development of waiver conditions and adaptive management processes to assure compliance with Basin Plan requirements.

The type of monitoring to be conducted for an individual timber harvest project (Implementation, Forensic and Effectiveness monitoring) shall be determined by the criteria listed in Waiver Attachment B, Part IV “Monitoring Conditions” or as otherwise directed, in writing, by the Executive Officer. Site inspections shall be conducted by qualified professionals<sup>1</sup>.

### INSPECTION SCHEDULE

**Implementation Monitoring** - Implementation monitoring inspections shall be initiated once the startup of timber harvest activities begin within an area covered by a Notice or Plan (nonfederal lands) or sale or project (federal lands) and shall continue throughout the duration of the project while timber harvest activities occur and until discharges associated with timber harvest activities cease. Implementation inspections shall be conducted as follows:

- *Where Timber Harvest Activities Have Not Yet Commenced*  
No inspections required.
- *Where Timber Harvest Activities Have Commenced and No Winter Operations Are Planned*  
A pre-winter Implementation inspection shall be completed **by October 15 (but not later than November 15) of each year** to assure that management measures are in place and secure prior to the winter period. Note: As indicated above, an inspection conducted by CDF may satisfy this pre-winter period inspection requirement.
- *Where Timber Harvest Activities Have Commenced and Winter Operations are Planned*  
A pre-winter implementation inspection shall be completed **by October 15 (but not later than November 15) of each year** to assure that management measures, for areas not subject to winter operations, are in place and secure prior to the winter period. An Implementation inspection shall be completed **immediately following cessation of**

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<sup>1</sup> “Qualified professional” means a person with the appropriate training and/or licensing to prepare technical reports designed to prevent or minimize the discharge of waste and to conduct site inspections.

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**winter period operations**, in areas where winter operations occurred, to assure management measures are in place and secure.

**Forensic Monitoring** - Forensic monitoring inspections shall be conducted during the winter period to determine the condition of installed management measures and to detect sediment discharges resulting from failed management measures and general timber harvest activities. Forensic monitoring shall take place at least two times during the winter period, as follows:

- **Once**, during or within 12 hours following a 24-hour storm event of at least 2 inches (of rainfall) and after 5 inches (of total precipitation) has accumulated **after November 15 and before April 1**. Inspections that cannot be conducted during or within 12 hours of such a storm event (due to worker safety, access or other uncontrollable factors) shall be conducted as soon as possible thereafter.
- **Once**, during or within 12 hours following a 24-hour storm event of at least 2 inches (of rainfall) and after 15 inches (of total precipitation) has accumulated **after November 15 and before April 1**. Inspections that cannot be conducted during or within 12 hours of such a storm event (due to worker safety, access or other uncontrollable factors) shall be conducted as soon as possible thereafter.

Additional Forensic Monitoring inspections shall be conducted if the following “observation trigger” occurs:

- A noticeable significant discharge of sediment is observed at any time in any Class I or Class II watercourse. Photo-point monitoring shall be conducted when such discharge is the result of failed water quality protection management measure(s) or lack of implementation of such measure(s).

Follow-up forensic monitoring inspections shall be conducted until corrective action is completed to repair or replace failed management measures and/or significant sediment discharges have ceased.

**Effectiveness Monitoring** - An Effectiveness monitoring inspection shall be conducted as soon as possible following the winter period to determine the effectiveness of management measures in controlling discharges of sediment and in protecting water quality. The Effectiveness monitoring inspection shall take place as follows:

- **After March 15 and before June 15** to assess the effectiveness of management measures designed to address controllable sediment discharges and to determine if any new controllable sediment sources have developed.

The Effectiveness monitoring inspection shall include visual inspection of hillslope components (roads, landings, skid trails, watercourse crossings and unstable areas). If the visual inspection of hillslope components reveals significant management measure failure(s), a visual inspection of instream components (bank composition and apparent bank stability, water clarity and instream sediment deposition) shall also be conducted.

## REPORTING

**Annual Reporting** - The discharger shall submit an Annual Monitoring Report to the Executive Officer by **July 15** for inspections covering the previous winter period for every year a timber harvest activity is enrolled in the Waiver. An Annual Monitoring Report need not be submitted for timber harvest activities that were started after the winter period until the following year. The Annual Monitoring Report shall, at a minimum, include the date and type of each inspection, the inspector's name and title, the location of each inspection including the name and number of the plan, notice, sale or project, and the title and name of the person submitting the report, the inspection findings (including any photographs taken with date and time clearly delineated) and shall describe how the discharger has complied with the requirements of this MRP. A discharger may submit a single Annual Monitoring Report for all timber harvest activities conducted for the year under a CDF approved Sustained Yield Plan. The timely submittal of a USFS BMP evaluation report will satisfy the reporting requirement for implementation monitoring for federal lands.

**Violation Reporting** - The discharger shall report as soon as possible by telephone, but no later than 48 hours after detection, any violation or suspected violation of an applicable water quality control plan requirement, failure of a major management measure (large fill area, watercourse diversion, major road or skid trail failure within or adjacent to a watercourse protection zone), any new landslide activity that may discharge sediment to watercourses, and any violation of Eligibility Criteria or Conditions listed in the Waiver. A written report regarding such violation(s) or management measure failure(s) shall be submitted within 14 days following detection and shall include the following:

- Date violation(s) or failure(s) was discovered
- Name and title of person(s) discovering violation(s) or failure(s)
- Map indicating location of violation(s) or failure(s)
- Nature and extent of violation(s) or failure(s)
- Photos of site characterizing violation(s) or failure(s)
- Corrective management measures implemented to date
- Implementation schedule for additional corrective actions
- Signature and title of person preparing report

The Executive Officer may modify or rescind this MRP at any time, or may modify and issue an MRP as to a specific discharger.

Ordered by \_\_\_\_\_  
PAMELA C. CREEDON, Executive Officer

\_\_\_\_ March 2010  
(Date)

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